



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,720	03/23/2001	Yusuke Kinoshita	205006US2	5624
22850	7590	08/05/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			RYMAN, DANIEL J	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/814,720	KINOSHITA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel J. Ryman	2665	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/01, 9/04, 1/05</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The reference seen on page 2, lines 12-13, should be included in an IDS.

### ***Drawings***

2. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: ref. 24 and 25 (see page 3, line 12-page 4, line 21 and Fig. 1); ref. 31 (see page 15, lines 1-8 and Fig. 9); and ref. 615 (see page 31, lines 1-25 and Fig. 16). Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet

Art Unit: 2665

should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

4. The abstract of the disclosure is objected to because it is poorly worded. Examiner urges Applicant to enter a new abstract which is better written. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities: on page 6, line 11 "has been completed" should be "has been completed (process 1007)"; on page 8, line 3 "mobile node 10" should be "mobile node 10 (process 1015)"; on page 15, line 23 "it should" should be "It should"; on page 15, line 24 "A us" should be "A are"; on page 17, line 13 "foreign network 21" should be "foreign network 21 (process 108)"; on page 18, line 14 "(process 116). a" should be "(process 116). A"; on page 18, line 22 "global address C" should be "global address C (process 117)"; on page 20, last line "massage" should be "message"; on page 26, line 8 "Fig. 14" should be "Fig. 15"; on page 27, line 19 "here" should be "Here"; on page 29, line 7 "the packet" should be "The packet"; on page 31, line 4 "packet her is" should be "packet is"; on page 31, line 12 "the packet" should be "The packet"; and on page 35, line 6 "Fig. 18" should be "Fig. 19".

Appropriate correction is required.

*Claim Objections*

6. Claim 2 is objected to because of the following informalities: in line 6 “node which, is” should be “node, which is”. Appropriate correction is required.

7. Claim 3 is objected to because of the following informalities: in line 1 “comprising the steps” should be “further comprising the steps” and “said node moved into said second network and said address changing means in said first network notifying to each other correspondence between said private address and said global address periodically after said node is registered in a home agent for managing said first network and a foreign agent for managing said second network” should be “when said node has moved into said second network, said address changing means in said first network periodically notifies the address changing means of the second network of the correspondence between said private address and said global address after said node has registered with a home agent for managing said first network and a foreign agent for managing said second network”. Appropriate correction is required.

8. Claim 4 is objected to because of the following informalities: in line 1 “comprising the steps” should be “further comprising the steps” and “requesting said address changing means in said first network said global address mapped to said private address” should be “requesting that the said address changing means in said first network transmits to the address changing means of the second network the correspondence between said global address mapped to said private address”. Appropriate correction is required.

9. Claim 5 is objected to because of the following informalities: in line 1 “comprising the steps” should be “further comprising the steps” and “detecting that a response indicating that said node is registered is sent from a home agent for managing said first network to a foreign agent

Art Unit: 2665

for managing said second network; and after the detection, requesting said address changing means in said first network said global address mapped to said private address” should be “detecting at an address changing means in the second network that a response indicating that said node is registered has been sent from a home agent for managing said first network to a foreign agent for managing said second network; and after the detection, requesting, by the address changing means of the second network, that said address changing means in said first network send the address changing means of the second network said global address mapped to said private address”. Appropriate correction is required.

10. Claim 7 is objected to because of the following informalities: in line 3 “seder” should be “sender”. Appropriate correction is required.

11. Claim 8 is objected to because of the following informalities: in line 8 “receives” should be “receiving”. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 2-6 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

14. Claims 2 and 9 do not disclose which element receives the packet, changes the address of the packet, or sends the packet. For the purposes of prior art rejections, Examiner will interpret

Art Unit: 2665

“receiving said packet from said node which” to be “receiving said packet from said node at an address changing means located in the second network when the node”; “changing said sender address of said received packet from said private address to a same global address as said global address” to be “changing, at the address changing means located in the second network, said sender address of said received packet from said private address to a same global address as said global address”; and “sending said packet whose sender address has been changed to the outside of said second network” to be “sending by the address changing means located in the second network said packet whose sender address has been changed to the outside of said second network”.

15. Claim 4 does not disclose the element which detects that the registration request is sent or which requests that the NAT in the first network sends the address tables to the second network. For the purposes of prior art rejections, Examiner will interpret “detecting that a registration request is sent from said node moved into said second network to a foreign agent for managing said second network; and after the detection, requesting said address changing means in said first network said global address mapped to said private address” as “detecting, at an address changing means in the second network, that a registration request is sent from said node moved into said second network to a foreign agent for managing said second network; and after the detection, requesting, by an address changing means in the second network, said address changing means in said first network said global address mapped to said private address”.

16. Claim 6 discloses the step of adding code for requesting said global address mapped to said private address to a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network. This step requires that after the

Art Unit: 2665

receiving, changing, and sending steps downloading code to a home agent. This is not supported by the specification. The specification discloses that the registration request can contain a request for the address mapping; however, the specification does not disclose that this request is sent through code sent from a foreign agent. For the purposes of prior art rejections, Examiner will interpret "adding code for requesting said global address mapped to said private address to a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network" to be "in a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network, requesting said global address mapped to said private address".

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Regarding claim 1, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required



Art Unit: 2665

feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation “different networks”, and the claim also recites “either of the networks” which is the narrower statement of the range/limitation. For the purposes of prior art rejections, Examiner will interpret “either of the networks” to “any of the networks”.

20. In claims 2 and 9 the phrase “node which is moved into said second network” is vague and indefinite since it is unclear if the node has already moved or is in the process of being moved. For the purposes of prior art rejections, Examiner will interpret “node which is moved into said second network” to be “node which has moved into said second network”.

21. In claims 2 and 9 the phrase “the outside of said second network” is vague and indefinite since it is unclear what networks constitute “outside the second network”. For the purposes of prior art rejections, Examiner will interpret “the outside of said second network” to be “a third network which is different than the first and the second networks”.

22. Claim 7 recites the limitations “said global address in a second network” and “said first network” in line 5. There is insufficient antecedent basis for these limitation in the claim. In addition, claim 7 does not in which network the outputting step occurs or to which network the sending occurs. Further, claim 7 discloses “a packet” in the outputting step and “a packet” in the sending step. It is unclear if these two packets are the same packets or if they are different. Similarly, the claim recites “a sending address” and an additional “a sender address” in the outputting step. It is unclear if these two sending addresses are the same sending address or if they are different. For the purposes of prior art rejections, Examiner will interpret “outputting a

Art Unit: 2665

packet including a private address as a sender address to changing means for changing a sender address of said packet from said private address to a global address; and sending a packet whose sending address is a global address which is same as said global address in a second network which is different from said first network” as “in a first network, outputting a packet including a private address as a sender address to changing means for changing the sender address of said packet from said private address to a global address; and sending the packet to a second network, which is different from the first network, where the global address of the packet is the same as a global address in the second network”.

23. Claim 8 recites the limitation “a sender address” in both lines 2 and 4. It is unclear if these two limitations refer to the same sender address or different sender addresses. For the purposes of prior art rejections “a sender address” in line 4 has been changed to “the sender address”.

24. In claim 8, the limitation “to the outside to said first network” is vague and indefinite. It is unclear what exactly constitutes the outside of the first network. For the purposes of prior art rejections, Examiner will interpret “the outside of the first network” to be “a third network which is different than the first network and a second network”. All other instances of “a second network” also will be changed to “the second network”.

### ***Claim Rejections - 35 USC § 102***

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 2665

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

26. Claims 1-4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al. (USPN 6,442,616).

27. Regarding claim 1, Inoue discloses a method for packet communication wherein a sender address of a packet including a private address (home address, H-addr) as a sender address sent by a node which can be moved among different networks is changed to a same global address (mobile address, M-addr) even when said node sends said packet in any of the networks (col. 5, lines 53-67 and col. 11, line 58-col. 12, line 5).

28. Regarding claim 2, Inoue discloses a method for packet communication for implementing the method wherein a node including a private address as a sender address (home address, H-addr) is moved from a first network (ref. 41: own organization network) having said node and address changing means (packet processing device) for receiving the packet from said node and then changing said sender address of the packet to a global address (mobile address, M-addr) for output into a second network which is different from said first network (col. 3, line 3-col. 4, line 33 and col. 5, line 50-col. 7, line 6), the method comprising the steps of: receiving said packet from said node at an address changing means (packet processing device) located in the second network (network reachable through external network on which mobile host, MH, is located) when the node has moved into said second network (col. 5, lines 53-67 and col. 11, line 58-col. 12, line 5); changing, at the address changing means located in the second network, said sender address of said received packet from said private address (H-addr) to a same global address (M-addr) as said global address (col. 5, lines 53-67 and col. 11, line 58-col. 12, line 5); and sending by the address changing means located in the second network said packet whose sender address

Art Unit: 2665

has been changed to a third network (network on which correspondence host, CH, is located) which is different than the first and the second networks (col. 5, lines 53-67 and col. 11, line 58-col. 12, line 5).

29. Regarding claim 3, Inoue discloses in one embodiment that when said node has moved into said second network, said address changing means in said first network periodically notifies (col. 8, lines 20-51) the address changing means of the second network of the correspondence between said private address and said global address after said node has registered with a home agent for managing said first network and a foreign agent for managing said second network (col. 13, line 54-col. 14, line 7) (col. 8, lines 20-51).

30. Regarding claim 4, Inoue discloses in one embodiment that it is possible to detect, at an address changing means (packet processing device) in the second network (network on which mobile host, MH, is located), that a registration request is sent from said node moved into said second network to a foreign agent for managing said second network (col. 13, line 54-col. 14, line 7); and after the detection, to request, by an address changing means in the second network, that the said address changing means in said first network transmits to the address changing means of the second network the correspondence between said global address mapped to said private address (col. 13, line 54-col. 14, line 7).

31. Regarding claim 7, Inoue discloses a method for packet communication, comprising the steps of, in a first network, outputting a packet including a private address (H-addr) as a sender address to changing means (packet processing device) for changing the sender address of said packet from said private address (H-addr) to a global address (M-addr) (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5); and sending the packet to a

second network, which is different from the first network, where the global address of the packet is the same as a global address in the second network (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5).

***Claim Rejections - 35 USC § 103***

32. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

33. Claims 5, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,442,616).

34. Regarding claim 5, Inoue does not expressly disclose detecting at an address changing means in the second network that a response indicating that said node is registered has been sent from a home agent for managing said first network to a foreign agent for managing said second network; and after the detection, requesting, by the address changing means of the second network, that said address changing means in said first network send the address changing means of the second network said global address mapped to said private address; however, Inoue does disclose detecting at an address changing means in the second network that a registration message sent from a mobile node to register in a foreign network has been sent and after the detection, requesting, by the address changing means of the second network, that said address changing means in said first network send the address changing means of the second network said global address mapped to said private address in order to ensure that all devices on the network use the same network translation tables (col. 13, line 54-col. 14, line 7). Inoue also

Art Unit: 2665

discloses sending a response indicating that said node is registered has been sent from a home agent for managing said first network to a foreign agent for managing said second network in order to inform the foreign network whether or not the registration has been successful (col. 7, line 60-col. 8, line 19, esp. col. 8, lines 4-10). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to detect at an address changing means in the second network that a response indicating that said node is registered has been sent from a home agent for managing said first network to a foreign agent for managing said second network; and after the detection, to request, by the address changing means of the second network, that said address changing means in said first network send the address changing means of the second network said global address mapped to said private address in order to request the address correspondence information only if the registration has been successful.

35. Regarding claim 6, Inoue does not expressly disclose in a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network, requesting said global address mapped to said private address; however, Inoue does disclose, based on a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network, requesting said global address mapped to said private address. Examiner takes official notice that the transmission of two messages requires is less bandwidth efficient than the transmission of single message due to overhead inefficiencies. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to in a registration request sent from a foreign agent for managing said second network to a home agent for managing said first network, request said global address mapped to said private address in order to transmit messages in a bandwidth efficient manner.

Art Unit: 2665

36. Regarding claim 8, Inoue discloses a method for packet communication, comprising the steps of: receiving a packet including a private address (H-addr) as a sender address from a first node in a first network (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5); changing the sender address of said received packet from said private address to a first global address (M-addr) (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5); sending said packet whose sender address has been changed to a third network which is different than the first network and a second network (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5). Inoue does not expressly disclose receiving a packet including a second global address, which is different from said first global address as a sender address, from a second node which has been moved into said first network from said second network which is different than the first network; and sending said packet to the third network without changing a sender address of said packet received from said second node from said second global address to said first global address; however, Inoue does disclose using address translation to ensure that the private addresses used in the first network are replaced with globally unique addresses when a packet is transmitted from the first network to the globally addressed second network (col. 3, line 3-col. 4, line 33; col. 5, line 50-col. 7, line 6; and col. 11, line 58-col. 12, line 5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention, when receiving a packet including a second global address, which is different from said first global address as a sender address, from a second node which has been moved into said first network from said second network which is different than the first network, to send said packet to the third network without changing a sender address of said packet received from said second node from said second global address to said first global

Art Unit: 2665

address since the packet already contains a globally unique address and thus does not require an address translation to obtain a globally unique address.

37. Regarding claim 9, referring to the rejection of claim 2, Inoue discloses all of the limitation of claim 9, as outlined in the rejection of claim 2, except that the method is implemented using a computer program stored in a computer-readable medium. Examiner takes official notice that it is well known in the art to use software to implement a method since software is very flexible. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use computer code to implement the method since software is very flexible.

### *Conclusion*

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Millet et al. (USPN 6,434,627) see entire document which pertains to using address translation to implement mobile IP networks. Inoue et al. (USPN 6,515,974) see entire document which pertains to using address translation to implement mobile IP networks. Inoue et al. (USPN 6,501,767) see entire document which pertains to using address translation to implement mobile IP networks. Redlich (USPN 6,591,306) see entire document which pertains to using address translation to implement mobile IP networks.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.




Art Unit: 2665

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 Daniel J. Ryman  
Examiner  
Art Unit 2665

  
HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600